

REMARKS

We would like to thank the Examiner and his supervisor for an in-person interview on November 5, 2009 in which the independent apparatus claims and the cited art were discussed. It was agreed that the cited art does not disclose a code phase decoder as set forth in claim 1, and that a further search may be conducted. The difference between using carrier phase angles, as is conventional, and code phase angles as set forth in the pending claims was also discussed at the interview. We have amended the independent claims for clarity, as discussed at the interview. The independent claims and the claims that depend therefrom should now be in form for allowance.

The subject of terminal disclaimers with respect to claims 10 and 21 came up at the interview as well. We now believe that this application should be allowed to issue without the filing of terminal disclaimers. With respect to the provisional non-statutory obviousness-type double patenting (ODP) rejection of pending claim 1 based on claim 1 of later-filed co-pending, commonly owned patent application serial number 11/088,357, we point to the MPEP§ 804 and the discussion therein of the instance in which two co-pending commonly owned applications are involved in the OPD and the cited claim in the later filed application stands rejected on other grounds. In such a situation, the MPEP states that the rejection should be withdrawn in the earlier-filed application, to permit the earlier-filed application to issue as a patent without a terminal disclaimer. This is the situation with respect to this ODP rejection and we request that the rejection be withdrawn.

With respect to claims 10 and 21, which are subject to an ODP based on claims 14-16 of later-filed co-pending and commonly owned patent application serial number 11/226,174, we point out that the claims of the co-pending application are patentably distinct from pending claims 10 and 21. The cited claims of the co-pending application include a limitation that code chip ranges are provided for a second PRN code that is transmitted on a second channel of the received signal. This limitation is not included in pending claims 10 and 21, nor is there a teaching of this limitation in the current application. Therefore, we contend that a terminal disclaimer over the cited claims 14-16 should not be required, and we request that the ODP rejection be withdrawn.

Claim 1 and dependent claims 8 and 9 are rejected also over a combination of US 2002/020181632 to Kang et al and two patents to Fenton, who is the inventor of the current invention. The Kang reference is relied upon in the Office Action to show the array of accumulators and the code phase decoder set forth in pending claim 1. However, as discussed at the interview, the decoder 130 of Kang is a despreader that simultaneously provides products to integrator 140, which as shown in more detail in Fig. 7, utilizes an arrangement of adders to add the products together into one sum. Accordingly, the decoder, or despreader, and the integrator of Kang do not teach or suggest the code phase decoder and/or the array of complex accumulators of claim 1, as amended. Further, the Fenton references do not provide the missing teaching to Kang.

Specifically, the correlators 22a-d of Fenton409 and the synchronizer 220 of Fenton207 that are pointed to in the Office Action do not add the missing code phase decoder and/or array of complex accumulators to Kang. The Fenton409 reference describes a system that operates with locally generated early, punctual and late versions of a PRN code and a locally generated blanked PRN code to accumulate associated measurements in corresponding punctual, early minus late and blanked PRN code correlators 22a-d. The Fenton207 reference describes a system that includes a synchronizer 220 that generates local codes and carriers, and operates with punctual and early minus late correlators. Accordingly, the correlators 22a-d and synchronizer 220 do not alone or together provide to Kang the missing teaching of the code phase decoder and/or array of complex accumulators. Accordingly, claim 1, as amended for clarity, and claims 8 and 9 that depend therefrom are not taught or suggested by the cited combination.

Independent method claim 35 is rejected over a combination of Underbrink, Fenton409 and Harms. The inphase and quadrature signals discussed in the Office Action with respect to Underbrink are defined with respect to carrier phase angles, not code phase angles. Accordingly Underbrink does not teach or suggest the step of selectively combining measurements into respective ranges, where the ranges are based on estimated code phase angles, as set forth in claim 35, as amended. As discussed above, Fenton409 does not provide the missing teaching.

Further, Harms does not add the missing teaching. Rather, Harms describes a mechanism of searching for code alignment by testing various versions of the code that are defined by different code offsets, to determine which version, i.e., code offset, is associated with the largest correlation value or sum. See Col. 24, line 7 et seq. Accordingly, claim 35, as amended for clarity, is not taught or suggested by the cited combination.

The same combination with the addition of Zhengdi is cited against independent method claim 39. Zhengdi does not add the teaching of the combining step that is missing from the combination cited against claim 35. In particular, the Zhengdi reference teaches using different, connection-specific, spreading codes for transmissions, to reduce interference. Zhengdi teaches using different spreading codes in which the alignments of the code chips in the respective spreading codes differ with respect to the data symbol boundaries for the different connections. Thus, for example, different numbers of chips in the spreading codes are associated with various data symbols on the respective connections, as illustrated in Figs. 5 and 6, presumably to aid in detecting and decoding the data symbols on the respective connections. There is no teaching in Zhengdi of the combining step of claim 39, and thus, Zhengdi does not add to the combination the missing teaching. The cited combination therefore does not teach or suggest the method as set forth in claim 39, as amended for clarity.

In light of the above, we request that the Examiner reconsider the rejection of claims 1-10, 21,35,36 and 39 and issue a Notice of Allowance for all pending claims, as amended for clarity. If the Examiner disagrees with our contention that terminal disclaimers are not required, we ask the Examiner contact the undersigned.

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Respectfully submitted,

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